

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/10/99

Date Received: 11/04/99

Project: Metro Self Monitor, PO# M62963

Date Samples Extracted: 11/08/99

Date Extracts Analyzed: 11/09/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M62963	0.26	0.32	0.23	0.06
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 911031-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.15	0.14	7	0-20
Copper	mg/L (ppm)	0.25	0.21	17	0-20
Nickel	mg/L (ppm)	0.23	0.24	4	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 911031-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.15	103	101	80-120	2
Copper	mg/L (ppm)	5	0.25	95	97	80-120	2
Nickel	mg/L (ppm)	10	0.23	104	101	80-120	3
Zinc	mg/L (ppm)	5	<0.05	109	112	80-120	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	111	112	80-120	1
Copper	mg/L (ppm)	5	109	108	80-120	1
Nickel	mg/L (ppm)	10	115	114	80-120	1
Zinc	mg/L (ppm)	5	114	115	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.
3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282

DH CI1
11-4-99

SAMPLE CHAIN OF CUSTODY

911029

Send Report To:

Company Alaskan Copper Works

Contact GERALD A. Thompson

Address 628 Hendon St

City, State, Zip Seattle WA 98104

Phone # 206-382-8379

FAX # 206-382-4809

Date 11-4-99

SITE NO.

PROJECT NAME

PURCHASE ORDER #

7238

Metro Self monitor

M 62963

SAMPLERS (signature)

PROJECT LOCATION

[Signature]

3200 6th Ave S.

REMARKS

SAMPLE DISPOSAL INFORMATION



Dispose after 30 days



Return Samples



Call for Instructions

Sample #

Date/Time
Sampled

Type of
Sample

of
Jars

Lab
Sample #

Analyses
Requested

m 62963

11/4/99 12:20

H2O

1

CR Cu Ni Zn

SIGNATURE

PRINT NAME

COMPANY

Date

Time

Relinquished by:

Gerald A. Thompson

ACW

11/4/99

1:07 pm

Received by:

Fred Wolf

F & B, Inc

11-4-99

1:08 pm

Relinquished by:

Received by:

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

November 10, 1999

DUPLICATE COPY

INVOICE #99ACU1110-3

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M62963: Results of testing requested
by Gerry Thompson for material submitted on November 4, 1999.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$80 per sample

\$ 80.00

Amount Due

\$ 80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID (b) (6)

AKC-0010290

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

November 10, 1999

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

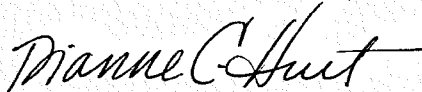
Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 4, 1999 from your Metro Self Monitor, PO# M62963 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Dianne C. Hurt
Project Manager

Enclosures
ACU1110R.DOC